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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/525,068	02/18/2005	Yoshiki Hashizume	0033-0983PUS1	5831

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EXAMINER	
ABU ALI, SHUANGYI	

ART UNIT	PAPER NUMBER
1793	

NOTIFICATION DATE	DELIVERY MODE
03/17/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No.	Applicant(s)	
	10/525,068	HASHIZUME ET AL.	
	Examiner	Art Unit	
	SHUANGYI ABU ALI	1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 December 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,5,6,12 and 15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5,6,12 and 15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *1/22/07*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Status of Claims

Claims 1-15 remain for examination wherein claim 1 is amended, claims 4, 7-11 and 13-14 are canceled.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.,* 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-3 and 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over combined teaching of U. S. Patent No. 5,637,143 to Jenkins et al. and U. S. Patent No. 5,364,467 to Schmid et al., further in view of U. S. Patent No. 6,894,089 to Mei et al.

Regarding claim 1, Jenkins et al. disclose an anti-corrosive aluminum pigment of high metallic luster. The aluminum pigment treated with phosphomolybdic acid (col. 5, lines 35 and 36).

But they are silent that the pigment is further coated with silica.

However, it would have been obvious to one of ordinary skill in the art at the time of invention by applicant to treat the pigment with silica, motivated by the fact that Schmid et al., also drawn to surface treated aluminum pigment, disclose that the pigment treated with metal oxide such as silica after coated with molybdenum oxide has distinctly improved resistance to outside influences. (col. 3, lines 26-29).

Combined teaching of Jenkins et al. and Schmid et al. disclose a pigment composition set forth above. But they are silent that the pigment is further coated with a coat prepared from a silane composition as applicants set forth in claim 1.

However, it would have been obvious to one of ordinary skill in the art at the time of invention by applicant to coat the pigment of combined teaching of Jenkins et al. and Schmid et al. with a silane layer, motivated by the fact that Mei et al. also drawn to pigment composition, disclose that pigments coated with silane compositions have better processibility and dispersibility in polymeric materials (col. 2, lines 1-3).

Regarding claims 2 and 3, Schmid et al. disclose in one of their pigment examples, that the molybdenum amount is 2.2% and the silicon oxide amount is 18.8 %(col. 9, lines 49-57).

Regarding claim 5, Mei et al. disclose the suitable silane for coating is

$$R_x\ Si(R')_{4-x}$$

wherein R is a nonhydrolyzable functional group directly or indirectly bonded to the silicon atom; R' is a hydrolyzable group such as alkoxy, halogen, acetoxy, hydroxy or mixtures thereof; and x=1 to 3. (col. 3, lines 1-10).

Regarding claim 6, Jenkins et al. disclose that aluminum amount is about 0.4% in the resin coating composition (col. 11, lines 53-60).

Claims 12 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over combined teaching of U. S. Patent No. 5,637,143 to Jenkins et al. ,U. S. patent No. 5,364,467 to Schmid et al. and U. S. Patent No. 4,842,837 to Shimizu et al., further in view of U. S. Patent No. 6,894,089 to Mei et al.

Regarding claims 12 and 15, combined teaching of Jenkins et al., Schmid et al., and Shimizu et al. disclose a process of making an aluminum pigment coated with molybdenum coat, a silica coat as applicant set forth above.

This is apparent because the combined teachings of Jenkins et al. and Schmid et al. disclose a pigment composition as set forth above. Jenkins et al. disclose a method for the manufacture of an aluminum pigment wherein a molybdenum coating is applied thereto by stirring a dispersed solution of aluminum particles and a molybdenum compound (col. 7, lines 49-57). But they are silent that silica coat is made through the process as applicants set forth in claims 12 and 15.

However, Shimizu et al. disclose a process of making silica by using ammonia as catalyst to hydrolysis of organic silicon compound. Since basic ammonia solution used

in reaction, the pH of the reaction mixture will be adjusted upward into the basic range (7-11).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention by applicant to use Shimizu et al. method to making silica coating, motivated by the fact that Schmid et al. disclose that this method is easy and highly productive and the silica made through this method has high purity. (col. 2, lines 1-15).

In view of this, the combined teaching of Jenkins et al., Schmid et al., and Shimizu et al. disclose a process of making an aluminum pigment coated with molybdenum coat and a silica coat as applicant set forth in the claims. But they are silent that the pigment is further coated with a coat prepared from a silane composition as applicant set forth in claims 12 and 15.

However, it would have been obvious to one of ordinary skill in the art at the time of invention by applicant to coat the pigment of the combined teachings of Jenkins et al. and Schmid et al. with a silane layer, motivated by the fact that Mei et al. also drawn to pigment composition coated with silane by hydrolysis organosilicon with caustic, disclose that pigment coated with a silane composition has better processibility and dispersibility in polymeric materials (col. 2, lines 1-3).

Response to Arguments

Applicant's arguments filed 12/15/2008 and 11/06/2008 have been fully considered but they are not persuasive.

Applicant argues that Jenkins et al. disclose no molybdenum compound coating. The Examiner respectfully submits that in Example 2, Jenkins et al. disclose the treatment of aluminum pigment with molybdenum compound. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Applicant argues that Schmid et al. disclose that the molybdenum compound was coated on silica. The Examiner respectfully submits that Schmid et al. disclose that layer (c) can be silica, which is on the layer (b) such as molybdenum oxide. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Applicants are not arguing the examiners reads for combining the references.

Applicant argues that Shimizu et al. are failed to disclose a molybdenum compound coat. The Examiner respectfully submits that Shimizu et al. is used to show the general process of making silica. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091,

231 USPQ 375 (Fed. Cir. 1986). Applicants are not arguing the examiners reads for combining the references.

Applicant argues that Mei et al. is not directed to a metallic pigment. The Examiner respectfully submits that Mei et al. is used to show the silane coating has better dispersiblity. Furthermore, Mei et al. discloses that the silane coating can be used on any pigment. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Applicants are not arguing the examiners reads for combining the references.

Applicant argues that combining the prior art does not yield predictable results. The Examiner respectfully submits that when considering obviousness of a combination of known elements, the operative question is thus "whether the improvement is more than the predictable use of prior art elements according to their established functions." In this case, the teachings of Schmid et al. disclose that the pigment treated with metal oxide such as silica after coated with molybdenum oxide has distinctly improved resistance to outside influences. (col. 3, lines 26-29). The teaching of Mei et al. disclose that pigment coated with a silane composition has better processibility and dispersibility in polymeric materials (col. 2, lines 1-3). In view of the above, combining the prior art would yield predictable results.

Applicant argues that substituting a 'white pigment" for a metallic pigment does not provide predictable result. The Examiner respectfully submit that the teaching of Mei disclose that any inorganic pigment can be treated with silane coating (col.2, lines 10-30) and "any" would include "metallic" pigments absent criticality.

Applicant argues that the Examiner should not support the conclusion of obviousness on the basis "obvious to try". The Examiner respectfully submits that the pigment structure of the instant application can be obtained by choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success and applicants shown no evidence otherwise.

Applicant argues that there is no rational or motivation for the combination. The Examiner respectfully submits that the teaching of Schmid et al. disclose that the pigment treated with metal oxide such as silica after coated with molybdenum oxide has distinctly improved resistance to outside influences. (col. 3, lines 26-29). The teachings of Mei et al. disclose that pigments coated with a silane composition has better processibility and dispersibility in polymeric materials (col. 2, lines 1-3), thus the motivation is the beneficial results obtained.

Since applicant amended claim 1, the rejection of nonstatutory obvious double patenting set forth in the previous office action is withdrawn.

At applicant's request, the reference U. S. Patent No. 7,045,212 is cited on a PTO-892.

The Examiner acknowledges the IDS filed on 01/22/2007.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SHUANGYI ABU ALI whose telephone number is (571)272-6453. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on 571-272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael A Marcheschi/
Primary Examiner, Art Unit 1793

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